Curriculum Handbook *for* **Parents**

2001–2002

Alberta
LEARNING

This document, along with most Alberta Learning documents, can be found on the web site at <**http://www.learning.gov.ab.ca**>.

The parent document titles referenced in this handbook may be purchased from:

Learning Resources Centre
12360 – 142 Street
Edmonton, Alberta, Canada, T5L 4X9
Telephone: 780–427–5775
Fax: 780–422–9750
Internet: <http://www.lrc.learning.gov.ab.ca>

Telephone numbers of branches referred to in this handbook can be reached, toll free, inside Alberta, by dialing 310–0000.

Curriculum Branch
Telephone: 780–427–2984
Fax: 780–422–3745
Email: <curric.contact@learning.gov.ab.ca>

French Language Services Branch
Telephone: 780–427–2940
Fax: 780–422–1947
Email: <LSB@learning.gov.ab.ca>

Special Programs Branch
Telephone: 780–422–6326
Fax: 780–422–2039
Email: <SpecialEd@learning.gov.ab.ca>

Learner Assessment Branch
Telephone: 780–427–0010
Fax: 780–422–4200
Email: <assess.contact@learning.gov.ab.ca>

ISSN 1483–1783

Copyright © 2001, the Crown in Right of Alberta, as represented by the Minister of Learning. Alberta Learning, 11160 Jasper Avenue, Edmonton, Alberta, Canada, T5K 0L2. Additional copies may be purchased from the Learning Resources Centre, 12360 – 142 Street, Edmonton, Alberta, Canada, T5L 4X9, telephone 780–427–5775; or, from one of the Queen's Printer Bookstores, telephone 780–427–4952, Edmonton; or, telephone 403–297–6251, Calgary. Inside Alberta, dial 310–0000 to be connected toll free.

Permission is given by the copyright owner to reproduce this handbook for educational purposes and on a nonprofit basis.

Curriculum Handbook
for **Parents**

2001–2002

GRADE **5**

Table of
Contents

Message from the Minister of Learning ..... *iii*

Introduction to the Grade 5 Handbook ..... *iv*

Introduction to the Elementary School Curriculum *1*

What Is Curriculum? *2*

- Achievement Tests *2*
- Special Needs *2*
- English as a Second Language *3*
- Personal and Career Development *3*

English Language Arts *4*

Language Arts in Language Programs (Immersion and Bilingual) *6*

Mathematics *6*

Science *11*

Social Studies *13*

Information and Communication Technology *15*

Physical Education *17*

Health *19*

Fine Arts *21*

Language Programs and Courses Other Than English *22*

Feedback *29*

©Alberta Learning, Alberta, Canada

102-02030/

Message from the
Minister of Learning

Alberta offers more schooling options than ever before. The opportunity for choice reflects our commitment to quality education—the solid foundation every child needs to learn, grow and succeed.

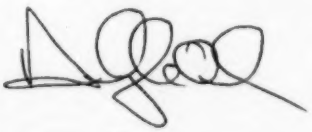
While students are at the centre of the education system, parents are vital partners. Your involvement in your child's education is critical to his or her success. To help your child succeed—you need to know what is being taught. This handbook is developed to provide you with that information. As well, I encourage you to continue working closely with your child's teacher who can provide you with invaluable information and guidance.

The *Curriculum Handbook for Parents* series is your guide to each stage of learning. It is an outline of what we expect our students to know at each grade level of their education. When you know what is expected at school, you can provide the home support your children need. By reading about what they are learning at school and discussing it at home, you are sending a very important message to your child—that you value education.

Alberta Learning revises curriculum in the core subject areas every eight to ten years. This ensures that course content remains current and relevant, and meets the needs of students preparing for their futures.

Education is a fundamental part of the Alberta Advantage, and government's goal is for Alberta to have the best-educated students in the world. We can accomplish this only one way—by working *together*. We are all partners in education—parents, teachers, trustees, administrators, community members—and we must work to address issues and help ensure Alberta students acquire the knowledge and skills they need for a successful future.

Our children are our future, and our most important investment.



Dr. Lyle Oberg
M.L.A. Strathmore-Brooks
Minister of Learning

©Alberta Learning, Alberta, Canada

Introduction to the Grade 5 Handbook

This handbook provides parents with information about the Grade 5 curriculum—the knowledge, skills and attitudes students in Alberta are expected to demonstrate when they have completed the Grade 5 curriculum. It is based on the Alberta Learning *Program of Studies: Elementary Schools.* The handbook includes samples of what students are expected to learn in each subject. The complete curriculum for Grade 5 is available in all Alberta elementary schools.

©Alberta Learning, Alberta, Canada

Introduction

TO THE ELEMENTARY SCHOOL CURRICULUM

Alberta Learning specifies what all students are expected to learn and be able to do. The curriculum is organized into separate subjects or course areas and is designed to enable teachers to make connections across subjects, and to develop programming that accommodates a range of student needs. We expect that teaching methods and schedules will vary from school to school and from class to class to meet the diverse learning needs of students.

©Alberta Learning, Alberta, Canada

What Is Curriculum?

Curriculum describes what students are expected to learn. In Alberta, curriculum is developed by Alberta Learning and is described in documents called programs of study for elementary, junior high and senior high schools.

The curriculum specifies what all students in the province are expected to learn in each subject area at each grade level. It is developed by Alberta Learning in consultation with teachers, administrators, parents, representatives from post-secondary institutions, and professional and community groups.

Teachers are responsible for using the curriculum to plan their teaching activities and set appropriate levels of challenge according to students' learning needs and abilities. Teachers regularly assess student progress and report to parents, students and school administrators.

A document entitled *The Parent Advantage* provides tips and strategies to assist parents in helping their children at home with their school work. This resource is available for purchase from the Learning Resources Centre.

Achievement Tests

As well as being assessed by their teachers, students write provincial achievement tests in grades 3, 6 and 9. Grade 3 students write achievement tests in language arts and mathematics. Grades 6 and 9 students write achievement tests in language arts, social studies, mathematics and science. Students in French programs write English and French language arts at grades 6 and 9, and the French forms of the other subject area achievement tests. Grade 3 students in French programs write the French form of the mathematics achievement test. The results of these achievement tests are provided to school boards and schools. Parents may ask for their child's test results at their local school.

Information about provincial achievement testing in grades 3, 6 and 9 is provided in Alberta Learning publications called *Parent Guide to Provincial Achievement Testing* and *Guide des parents Programme des tests de rendement provinciaux*. Individual guides for Grade 3 and for Grade 6 are available in elementary schools. The Grade 9 guide is available in junior high schools. The publications also may be obtained from Alberta Learning's Learner Assessment Branch.

Special Needs

School boards are required to provide each resident student with an education program, including access to special education programs. If you think that your child may have special needs, talk to your child's teacher. *Partners During Changing Times* is an information booklet for parents of children with special needs. It provides a general overview of how you can be involved in the education of your children. This document is available on the Alberta Learning web site or by contacting the Special Programs Branch, Edmonton. An additional resource, *The Parent Advantage*, provides tips and strategies to assist parents in helping their children at home with their schoolwork. This resource is

©Alberta Learning, Alberta, Canada

available for purchase from the Learning Resources Centre. As well, *A Handbook for Aboriginal Parents of Children with Special Needs* provides information to assist Aboriginal parents in working with schools to meet the special needs of their children. This resource is also available for purchase from the Learning Resources Centre.

English as a Second Language

Many children born in Canada have a first language other than English, and many students move here from non-English speaking countries. Schools provide additional assistance for English as a Second Language (ESL) students in grades 1 to 12. This helps them acquire sufficient fluency in English so they can integrate into the regular classroom as quickly as possible. If you think your child may have ESL needs, talk to your child's teacher.

Personal and Career Development

Preparing for life and work is a complex process that begins in the early years of schooling and continues throughout our lives. Alberta schools are taking an active role—along with parents and the community—in helping students move successfully from basic education to further studies and the workplace.

In the elementary grades, students explore their personal interests and values, and learn about different roles and career areas. They also begin to develop life skills, such as cooperating with others and being reliable.

Personal and career development activities and outcomes are integrated into all elementary courses and programs. In particular, the elementary health program focuses specifically on these topics.

©Alberta Learning, Alberta, Canada

English Language Arts

Language is the basis of all communication. Language learning is an active process that begins at birth and continues throughout life. Children learn language as they use it to communicate their thoughts, feelings and experiences; establish relationships with family members and friends; and strive to make sense and order of their world. Responsibility for language learning is shared by students, parents, teachers and the community.

The aim of English language arts is to enable each student to understand and appreciate language, and to use it confidently and competently in a variety of situations for communication, personal satisfaction and learning.

By the end of Grade 5, students will listen, speak, read, write, view and represent to:

◆ ***explore thoughts, ideas, feelings and experiences***

- use appropriate prior knowledge and experiences to make sense of new ideas and information
- reflect on areas of personal accomplishment, and set personal goals to improve language learning and use
- seek the viewpoints of others to build on personal responses and understanding
- use talk, notes, personal writing and representing to explore relationships among own ideas and experiences, those of others and those encountered in oral, print and other media texts

◆ ***comprehend and respond personally and critically to oral, print and other media texts***

- use knowledge of organizational structures, such as tables of contents, indices, topic sentences and headings, to locate information and to construct and confirm meaning
- preview sections of print texts, and apply reading rate and strategies appropriate for the purpose, content and format of the texts
- use the meanings of familiar words to predict the meanings of unfamiliar words in context
- monitor understanding by comparing personal knowledge and experiences with information on the same topic from a variety of sources
- identify and use the structural elements of texts, such as letters, brochures, glossaries and encyclopedias, to access and comprehend ideas and information
- integrate knowledge of phonics, sight vocabulary and structural analysis with knowledge of language and context clues to read unfamiliar words in context
- find words in dictionaries and glossaries to confirm the spellings or locate the meanings, by using knowledge of phonics and structural analysis, alphabetical order and guide words
- experience oral, print and other media texts from a variety of cultural traditions and genres

©Alberta Learning, Alberta, Canada

- describe and discuss new places, times, characters and events encountered in oral, print and other media texts
- identify the main problem or conflict in oral, print and other media texts, and explain how it is resolved
- experiment with words and sentence patterns to create word pictures; identify how imagery and figurative language, such as simile and exaggeration, convey meaning
- use texts from listening, reading and viewing experiences as models for producing own oral, print and other media texts
- use own experience as a starting point and source of information for fictional oral, print and other media texts

◆ ***manage ideas and information***

- summarize important ideas in oral, print and other media texts and express opinions about them
- combine personal knowledge of topics with understanding of audience needs to focus topics for investigation
- locate information to answer research questions, using a variety of sources, such as newspapers, encyclopedias, CDROMs, a series by the same writer, scripts, diaries, autobiographies, interviews and oral traditions
- use clear organizational structures, such as chronological order, and cause and effect, to link ideas and information and to assist audience understanding
- add, delete or combine ideas to communicate more effectively
- record ideas and information in relevant categories, according to a research plan
- communicate ideas and information in a variety of oral, print and other media texts, such as illustrated reports, charts, graphic displays and travelogues
- assess personal research skills, using pre-established criteria

◆ ***enhance the clarity and artistry of communication***

- develop criteria for evaluating the effectiveness of oral, print and other media texts
- revise to add and organize details that support and clarify intended meaning
- write legibly, using a style that is consistent in alignment, shape and slant
- apply word processing skills, and use publishing programs to organize information
- experiment with words, phrases, sentences and multimedia effects to enhance meaning and emphasis
- use phonic knowledge and skills, visual memory, the meaning and function of words in context, and spelling generalizations to spell with accuracy in own writing
- know and consistently apply spelling conventions when editing and proofreading own writing
- use quotation marks and separate paragraphs to indicate passages of dialogue in own writing

©Alberta Learning, Alberta, Canada

- use effective openings and closings that attract and sustain reader or audience interest
- identify and interpret the purpose of verbal and nonverbal messages and the perspectives of the presenter

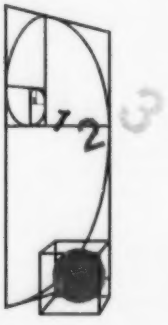
◆ ***respect, support and collaborate with others***

- compare own and others' responses to ideas and experiences related to oral, print and other media texts
- identify and discuss how qualities, such as courage, ambition and loyalty, are portrayed in oral, print and other media texts from diverse cultures and communities
- determine and use language appropriate to the context of specific situations
- accept and take responsibility for fulfilling own role as a group member
- contribute ideas to help solve problems, and listen and respond constructively
- show appreciation for the contributions of others, and offer constructive feedback to group members.

Language Arts in Language Programs (Immersion and Bilingual)

In addition to studying the English language arts, students registered in an immersion or a bilingual program follow a language arts course in the target language; e.g., French, Ukrainian, German. In these programs, this target language is also used as the language of instruction in other subject areas, such as mathematics, science, social studies.

Mathematics



Mathematics is a common human activity, increasing in importance in a rapidly advancing, technological society. A greater proficiency in using mathematics increases the opportunities available to individuals. Students need to become mathematically literate in order to explore problem-solving situations.

At all levels, students benefit from working with appropriate materials, tools and contexts when constructing personal meaning about new mathematical ideas.

The main goals of mathematics education are to prepare students to:

- use mathematics confidently to solve problems
- communicate and reason mathematically
- appreciate and value mathematics
- commit themselves to lifelong learning
- become mathematically literate adults, using mathematics to contribute to society.

©Alberta Learning, Alberta, Canada

As students acquire the specified outcomes, they will also be expected to use the following seven mathematical processes:

Communication
Connections
Estimation and Mental Mathematics
Problem Solving
Reasoning
Technology
Visualization.

The mathematics content is organized into four strands:

Number
Patterns and Relations
Shape and Space
Statistics and Probability.

Number

By the end of Grade 5, students will:

- Demonstrate a number sense for whole numbers 0 to 100 000, and explore proper fractions and decimals.

Sample Student Tasks

- Tony drew these five number cards . . . [1] [3] [0] [2] [3]
  Use all of the five cards to show the following:
  the greatest possible number
  the least possible number
  three other possible numbers.
  Write two of these numbers in words.
  Rewrite your numbers in order from least to greatest.

- With the help of fractional strips or segmented circles, put the following fractions into order of increasing size:
  $\frac{5}{6}, \frac{2}{3}, \frac{3}{8}, \frac{2}{4}$.

- Apply arithmetic operations on whole numbers and decimals, and illustrate their use in creating and solving problems.

Sample Student Tasks

- You have this amount of change:
  2 dollar coins, 5 quarters, 13 dimes, 6 nickels and 14 pennies.
  These items are for sale:

Pen	$1.95
Note pad (large)	1.89
Note pad (small)	1.19
Pencil	.59

  Use this information to make up a problem.

- Let a flat represent 1 unit. Let a long represent 0.1 units. Let a centicube represent 0.01 units.

©Alberta Learning, Alberta, Canada

Use the blocks to explain the meaning and solution to this expression:

4×1.34

Use your solution to mentally calculate the following:

8×1.34

16×1.34

2×1.34

- Using only the [2], [+], [−], [×] and [÷] keys on your calculator, make the display read 13.

Patterns and Relations

By the end of Grade 5, students will:

- Construct, extend and summarize patterns, including those found in nature, using rules, charts, mental mathematics and calculators.

Sample Student Tasks

- Use stir sticks to copy these triangular shapes. Build the next three shapes. How many stir sticks are needed to build five triangles?

Copy this chart. Complete the chart to record the number of Δs and the matching number of stir sticks in your constructions. Predict the number of stir sticks needed to make 75 triangles. Explain how you arrived at your solution.

Number of triangles	1	2	3							10		75
Number of sticks	3											

- The community centre was charging $1.00 to see a movie. $25.00 was collected on the first day. $17.00 more was collected on the second day than on the first day. After two days the club had collected $67.00 in all. On the third day, $17.00 more than the second day was collected. If the pattern continues, on what day will the club have collected at least $500.00?

	Day 1	Day 2		
Day's collection ($)	25			
Total collected ($)	25	67		

©Alberta Learning, Alberta, Canada

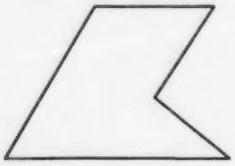
Shape and Space

By the end of Grade 5, students will:

- Use measurement concepts, appropriate tools and results of measurements to solve problems in everyday contexts.

Sample Student Tasks

- Determine the perimeter of the figure below.



- Monique used square tiles to construct a rectangle with a perimeter of 20 cm and an area of 21 cm^2.
  What are the dimensions of the rectangle? Use only whole numbers of centimetres for your answers.
  She decides to keep the perimeter at 20 cm. Predict what will happen to the area of her rectangle, if she increases the length of her rectangle and if she decreases the length of her rectangle. Outline and cut all possible rectangles with a perimeter of 20 cm. Check your predictions.
- Supermarkets order groceries in large lots. About how many packages are there in:
  1 t of cookies, packed in 400 g packages?
  1 kg of spices, packed in 5 g packages?
  Explain your reasoning.

- Use visualization of 3-dimensional objects and 2-dimensional shapes to solve problems related to spatial relations.

Sample Student Tasks

- What other information do you need to know so that you and a friend can draw the same triangle, if all you know is that one side must be 2 cm and another is 3 cm?

- Describe motion in terms of a slide, a turn or a flip.

Sample Student Tasks

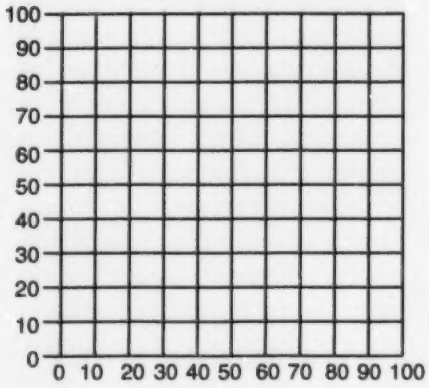
- Use pattern blocks of one shape and size only to cover a surface 25 cm by 25 cm in area (tessellation).

- Use coordinates to describe the positions of objects in two dimensions.

©Alberta Learning, Alberta, Canada

Sample Student Tasks

- Plot the points on the grid.
  A (10, 30)
  B (60, 20)
  C (80, 90)
  Join the points to outline a shape.
  What different ways do you know to describe the shape?



Statistics and Probability

By the end of Grade 5, students will:

- Develop and implement a plan for the collection, display and interpretation of data to answer a question.

Sample Student Tasks

- Wui-Ching needs to spin a 6, or any of its factors, to win a game.

On a tally chart, record the data from at least 50 spins. Show all your data on a frequency diagram. Do you think Wui-Ching is more likely to win or lose the game? Why?

- Predict outcomes, conduct experiments and communicate the probability of single events.

Sample Student Tasks

- Yvon tossed 20 tacks. 13 tacks landed on their points. He uses the fraction $\frac{13}{20}$ to describe the probability of tossing "points."

Top

Point

Yvon says he can now predict 39 "points," if he tosses 60 tacks. Explain his reasoning.
Conduct an experiment to test Yvon's prediction. Compare your results with his prediction.

©Alberta Learning, Alberta, Canada

Start a new experiment. Toss the tacks to establish the probability of landing "tops." Use your fraction to predict tossing "tops," and conduct an experiment to check your prediction. Compare your results with your expectations. If you continue to conduct experiments with tacks, will you improve your ability to toss exactly the number you predict? Why?

Parent Document

The booklet *Working Together in Mathematics Education* provides an overview of the new mathematics curriculum and shows some of the knowledge, skills and attitudes students are expected to learn. It presents some ways parents and others can support student learning in mathematics.

Working Together . . . is available for purchase from the Learning Resources Centre. This booklet is also available for viewing and downloading from the Alberta Learning web site.

Science

Learning about science helps students to understand and interpret the world around them. The purpose of the program is to encourage and stimulate children's learning by nurturing their sense of wonderment, by developing skill and confidence in investigating their surroundings, and by building a foundation of experience and understanding upon which later learning can be based.

Skill and Attitude Outcomes

In elementary science, students develop their skills of inquiry and problem solving. In science inquiry, the focus is on asking questions, exploring materials and finding answers based on evidence. In problem solving, the focus is on practical tasks—finding ways of making and doing things to meet a specific need, using available materials.

By the end of Grade 5, students are expected to:

- recognize the importance of accuracy in observation and measurement; and, with guidance, apply suitable methods to record, compile, interpret and evaluate observations and measurements
- design and carry out an investigation of a practical problem, and develop a possible solution.

The science program also plays a role in the development of student attitudes. At all levels of the elementary science program, students are expected to demonstrate positive attitudes toward the study of science and the application of science in responsible ways.

Science topics studied in Grade 5.

©Alberta Learning, Alberta, Canada

Electricity and Magnetism

Students learn about electricity by building and testing circuits. Using batteries, bulbs and wires, students construct simple circuits and test the effects of various modifications. Through such tests, they discover that a circuit requires a closed pathway for electricity and that some materials conduct electricity and others do not. They learn that an electric current can affect a nearby magnet and that this property of electricity is used in making electromagnets and motors. Potential dangers are examined, as students learn about the safe use of electricity.

By the end of Grade 5, students are expected to:

- demonstrate safe methods for the study of magnetism and electricity
- identify methods for measurement and control
- apply techniques for evaluating magnetic and electrical properties of materials.

Mechanisms Using Electricity

Students build electrical devices for a variety of purposes, using knowledge gained in the previous topic. Tasks that students are assigned may include such things as making a switch from scrap materials, making a device to control the speed of a motor, making a burglar alarm and lighting three bulbs from one source. Through work on these tasks, students learn the role of various components and control devices that are part of an electrical system. At the same time, they develop skills of problem solving and teamwork.

By the end of Grade 5, students are expected to:

- construct simple circuits
- apply an understanding of circuits to the construction and control of motorized devices.

Classroom Chemistry

Students learn about the properties and interactions of some safe-to-handle household liquids and solids. They test a variety of materials to see what happens when things are mixed together: what dissolves, what reacts and what remains unaffected. They discover that when a solid material dissolves, it can be recovered as a crystal by evaporating the liquid. They also learn that when two materials react to form a new material, the original materials cannot be recovered. As an example of a chemical reaction, students learn to produce carbon dioxide gas and show that this gas differs from ordinary air.

By the end of Grade 5, students are expected to:

- describe the properties and interactions of various household liquids and solids, and interpret their interactions.

Weather Watch

Students learn about weather phenomena and the methods used for weather study. They learn to measure temperatures, wind speed and direction, the amounts of rain and snow, and the amount of cloud cover. In studying causes and patterns of air movements, students learn about the effects of uneven heating and cooling and discover the same

©Alberta Learning, Alberta, Canada

patterns of air movement in indoor environments as are found outdoors. They also learn about human actions that can affect weather and climate and study the design and testing of clothing used as protection against the weather.

By the end of Grade 5, students are expected to:

- observe, describe and interpret weather phenomena
- relate weather to the heating and cooling of Earth's surface
- investigate relationships between weather phenomena and human activity.

Wetland Ecosystems

Students learn about wetland ecosystems by studying life in a local pond, slough, marsh, fen or bog. Through classroom studies and studies in the field, students learn about organisms that live in, on and around wetlands, and about adaptations that suit pond organisms to their environment. Through observation and research, students learn about the interactions among wetland organisms and about the role of each organism as part of a food web. The role of human action in affecting wetland habitats and populations is also studied.

By the end of Grade 5, students are expected to:

- describe the living and nonliving components of a wetland ecosystem and the interactions within and among them.

Social Studies

In social studies, students develop the knowledge, skills and positive attitudes they need to be responsible citizens and contributing members of society. Students learn to acquire and evaluate information and ideas. They learn to interact with others and develop understanding and respect for people in Canada and other countries. The focus of the Grade 5 social studies program is Canada—its history, geography and people, and its links with other countries.

Three topics are identified for Grade 5.

Canada: Its Geography and People

Students learn about the human and physical geography of Canada. The study includes people in Canada: where they live, how they make their living and how they relate to their environment. Students should develop an awareness of the diversity in Canada's physical geography and an understanding of the role geography plays in determining where and how Canadians live.

By the end of Grade 5, students are expected to:

- understand and appreciate that environment plays a major role in determining where and how people in Canada live
- locate, organize and summarize information from a variety of sources
- demonstrate ability to use a variety of maps and globes
- demonstrate ability to interpret information from a variety of sources

©Alberta Learning, Alberta, Canada

- draw conclusions about how physical characteristics affect natural resources, occupations, population distribution and transportation
- understand and appreciate how Canadians have adapted to their environment.

Early Canada: Exploration and Settlement

Students investigate some of the historical events relating to the exploration and settlement of New France and the Hudson Bay area. Major emphasis is placed on the contact among Natives, explorers, missionaries and settlers in these two areas.

By the end of Grade 5, students are expected to:

- understand that exploration and settlement cause groups to influence each other, changing the way people live
- distinguish between fact and fiction
- use library skills to locate and choose resources
- classify and arrange information
- record events on a timeline
- use maps and globes to explain how geography has influenced historical events
- identify different perspectives of Natives, explorers and other groups
- role play historical events
- present information, orally and in writing, about the history of Canada
- summarize main points in oral and written presentations
- participate in small group discussions
- appreciate the accomplishments of Natives, explorers, settlers and missionaries.

Canada's Links with Other Countries

Students examine how Canada is linked to the United Kingdom, France and the United States. They briefly examine the links that existed in the exploration and settlement period and then focus on an in-depth examination of several links that exist today.

By the end of Grade 5, students are expected to:

- understand that links established through interaction with other countries influence the way Canadians live
- select information from a variety of sources
- gather information from a variety of sources, including interviews or surveys
- complete a simple outline as a data-gathering procedure
- compare information from two or more sources; and then organize the information in a chart or graph
- plot information on maps
- use map symbols to locate places being studied
- analyze how Canada's interaction with another country influences our lives
- write an editorial, stating a point of view about our links with another country
- contribute to various functions of group work.

©Alberta Learning, Alberta, Canada

Information and Communication Technology (ICT)

The ICT curriculum provides a broad perspective on the nature of technology, how to use and apply a variety of technologies, and the impact of ICT on self and society. Students in Kindergarten through Grade 12 will be encouraged to grapple with the complexities, as well as the advantages and disadvantages, of technologies in our lives and workplaces.

Technology is about the way things are done; the processes, tools and techniques that alter human activity. ICT is about the new ways in which we can communicate, inquire, make decisions, manage information and solve problems.

The ICT curriculum is not intended to stand alone as a course, but rather to become a part of core courses and programs.

The ICT curriculum will be implemented in all schools in Alberta over a three-year period, starting September 2000 through to June 2003.

General and Specific Outcomes

General outcomes for the ICT curriculum are statements that identify what students are expected to know and be able to do and value by the end of grades 1–3, 4–6, 7–9 and 10–12. There is a progressive sequence of skill development throughout the grades. Specific outcomes expand on the general outcomes and state in more detail what students are expected to learn. ICT outcomes are organized into three main categories, as shown in the charts below. For each category, all the general outcomes themselves also are listed.

Communicating, Inquiring, Decision Making and Problem Solving
C1 Students will access, use and communicate information from a variety of technologies.
C2 Students will seek alternative viewpoints, using information technologies.
C3 Students will critically assess information accessed through the use of a variety of technologies.
C4 Students will use organizational processes and tools to manage inquiry.
C5 Students will use technology to aid collaboration during inquiry.
C6 Students will use technology to investigate and/or solve problems.
C7 Students will use electronic research techniques to construct personal knowledge and meaning.

©Alberta Learning, Alberta, Canada

Foundational Operations, Knowledge and Concepts	Processes for Productivity
F1 Students will demonstrate an understanding of the nature of technology.	P1 Students will compose, revise and edit text.
F2 Students will understand the role of technology as it applies to self, work and society.	P2 Students will organize and manipulate data.
F3 Students will demonstrate a moral and ethical approach to the use of technology.	P3 Students will communicate through multimedia.
F4 Students will become discerning consumers of mass media and electronic information.	P4 Students will integrate various applications.
F5 Students will practise the concepts of ergonomics and safety when using technology.	P5 Students will navigate and create hyperlinked resources.
F6 Students will demonstrate a basic understanding of the operating skills required in a variety of technologies.	P6 Students will use communication technology to interact with others.

Examples of Specific Outcomes

By the end of Grade 6, students are expected to:

- organize information gathered from the Internet, or an electronic source, by selecting and recording the data in logical files or categories; and by communicating effectively, applying information technologies that serve particular audiences and purposes
- recognize that information serves different purposes and that data from electronic sources may need to be verified to determine accuracy or relevance for the purpose used
- solve problems requiring the sorting, organizing, classifying and extending of data, using such tools as calculators, spreadsheets, databases or hypertext technology.

The ICT curriculum, along with support documents, can be found on the Alberta Learning web site.

©Alberta Learning, Alberta, Canada

Physical Education

The physical education program emphasizes active living, with a focus on physical activity that is valued and integrated into daily life.

The aim of the K–12 physical education program is to enable individuals to develop the knowledge, skills and attitudes necessary to lead an active, healthy lifestyle.

Four general outcomes form the basis of the K–12 curriculum. These are interrelated and interdependent. Each is to be achieved through participation in a variety of physical activities from the five dimensions outlined in general outcome A.

Each general outcome includes specific outcomes by grade, or by course name at the senior high school level. Specific outcomes for Grade 5 physical education follow.

By the end of Grade 5, students will:

General Outcome A

- acquire skills through a variety of developmentally appropriate movement activities; dance, games, types of gymnastics, individual activities and activities in an alternative environment; e.g., aquatics and outdoor pursuits.

Basic Skills

- select, perform and refine more challenging locomotor sequences
- consistently and confidently perform locomotor skills and combination of skills, by using elements of body and space awareness, effort and relationships to a variety of stimuli to improve personal performance
- select, perform and refine more challenging nonlocomotor sequences
- consistently and confidently perform nonlocomotor skills by using elements of body and space awareness, effort and relationships to a variety of stimuli to improve personal performance
- select, perform and refine more challenging ways to receive, retain and send an object with control
- consistently and confidently perform manipulative skills by using elements of body and space awareness, effort and relationship

Application of Basic Skills

- select, perform and refine more challenging basic skills in a variety of environments and using various equipment; e.g., cross-country, orienteering skiing
- demonstrate a variety of dances; e.g., creative, folk, line, sequence and novelty, alone and with others
- demonstrate a creative process to develop dance sequences alone and with others; and demonstrate movement sequences in response to a variety of musical, verbal and visual stimuli
- apply critical thinking and problem-solving skills to create competitive and cooperative modified games that involve everyone
- demonstrate basic strategies and tactics that coordinate effort with others; e.g., team, in order to achieve a common activity goal in lead-up games

©Alberta Learning, Alberta, Canada

- apply and refine basic skills and elements of body and space awareness, effort and relationships together to form a variety of more challenging gymnastic sequences individually, with a partner, or in a group; e.g., educational, rhythmic gymnastics
- select, perform and refine more challenging basic skills in individual activities; e.g., hacky sack

By the end of Grade 5, students will:

General Outcome B

◆ understand, experience and appreciate the health benefits that result from physical activity.

Functional Fitness
- explain the relationship between nutritional habits and physical activity
- demonstrate and select ways to achieve a personal functional level of physical fitness through participation in physical activity
- identify and explain the importance of the components of fitness to health and well-being; e.g., strength, endurance, flexibility, cardio-respiratory activities

Body Image
- acknowledge and accept individual differences in body shapes and how different body types contribute to positive involvement in physical activities

Well-being
- infer positive benefits gained from specific physical activities
- describe how physical activity influences physical fitness and the body systems
- understand the connection between physical activity, stress management and relaxation

By the end of Grade 5, students will:

General Outcome C

◆ interact positively with others.

Communication
- identify and demonstrate respectful communication skills appropriate to cooperative participation in physical activity

Fair Play
- demonstrate etiquette and fair play

Leadership
- select and demonstrate responsibility for various roles while participating in physical education; and, accept ideas from others that relate to changing/adapting, movement experiences

Teamwork
- identify and demonstrate practices that contribute to teamwork
- identify and demonstrate positive behaviours that show respect for self and others

©Alberta Learning, Alberta, Canada

By the end of Grade 5, students will:

General Outcome D

◆ assume responsibility to lead an active way of life.

Effort
- participate regularly in physical activity to develop components of health-related fitness and movement skills
- demonstrate factors that encourage movement

Safety
- identify and follow rules, routines and procedures for safety in a variety of activities
- participate in, and identify the benefits of, safe warm-up and cool-down activities
- identify safe practices that promote an active, healthy lifestyle; e.g., water safety

Goal Setting/Personal Challenge
- set long-term goals to improve personal performance based on interests and abilities
- demonstrate different ways to achieve an activity goal that is personally challenging

Active Living in the Community
- create a strategy to promote participation in physical activity within the school and the community
- identify factors made to be active within group or individual activities on a daily basis

Consideration for exemptions from participation in physical education is given for medical conditions, when accompanied by medical certification from a doctor to the principal; for religious beliefs, when accompanied by a statement in writing from a parent to the principal and where access to facilities is prohibitive. When exemption is granted, activities consistent with the program outcomes should be substituted where appropriate.

Health

BODY & MIND AWARENESS

Health education fosters the growth of knowledge, skills, attitudes and lifelong behaviours that will enable the student to assume responsibility for healthful living and personal well-being. The curriculum is organized around themes: self-awareness and acceptance, relating to others, life careers, body knowledge and care, and human sexuality. Parents decide if their child will participate in classes about human sexuality.

The child abuse prevention unit is an optional part of the health program. If this unit is offered in the school, parents decide if their child will participate.

©Alberta Learning, Alberta, Canada

Self-awareness and Acceptance

Students learn to consider and appreciate their self-worth and the self-worth of others. They learn about human emotions and positive ways of expressing them. They also learn about personal characteristics and how their personal actions and decisions influence their relationships with others.

By the end of Grade 5, students are expected to:

- recognize the effects of "put-ups" and "put-downs" on themselves and others
- be aware of feelings and be able to express them
- recognize that personality is developed and influenced by most human relationships
- be honest and reliable in a variety of situations.

Relating to Others

Students learn to appreciate the qualities of others. They learn how to develop and maintain healthful relationships, and they understand the importance of healthful relationships with others at school.

By the end of Grade 5, students are expected to:

- develop skills that promote open, genuine relationships
- become aware of the changing expectations of teachers and other adults.

Life Careers

Students learn to recognize their abilities and the abilities of others, and to understand the importance of work, occupations associated with work, and activities that help them prepare for work.

By the end of Grade 5, students are expected to:

- develop greater awareness of how one's activities and interests relate to occupations
- understand that cooperation among workers is important
- observe the ways of living of various people in the community.

Body Knowledge and Care

Students learn the structure, function and development of the body, and appreciate the importance of good nutrition to good health. As well, students appreciate factors that contribute to healthful growth, understand how sickness and disease can be prevented, understand safety practices, and appreciate threats and aids to personal health and safety in their community.

By the end of Grade 5, students are expected to:

- plan a balanced meal
- understand how strength, flexibility, agility and endurance develop through regular exercise to promote cardiovascular fitness
- describe the immediate and long-term effects of tobacco use.

©Alberta Learning, Alberta, Canada

Human Sexuality

Students are expected to understand the structure and function of the reproductive system, and to understand puberty and its associated changes. As well, they are expected to understand how human life is created.

By the end of Grade 5, students are expected to:

- understand that growth at puberty occurs in spurts
- accept one's own stage and level of development
- develop a basic knowledge of how reproduction occurs.

Fine Arts

Art

In the art program, students are expected to learn visual arts skills and concepts to interpret and communicate with visual symbols, to appreciate the cultural aspects of art, and to relate art to everyday life. The art curriculum has four major components:

reflection – responding to visual forms in nature and designed objects
depiction – developing imagery based on observations of the visual world
composition – organizing images and their qualities in the creation of works of art
expression – using art materials to make a meaningful statement.

Students are expected to:

- analyze forms seen in nature and in man-made objects
- develop their own images of things that they see or imagine
- organize the images that they create
- use a variety of art materials
- use art for different purposes; for example, to illustrate stories, design fabrics and sculpt
- understand the contribution of art to our environment.

Drama

Drama is an optional program designed to be used as a separate subject or integrated with other subjects. In the drama program, students are expected to develop a positive self-concept by assuming other roles and acquiring dramatic skills. Eleven forms of dramatic expression are common components of an elementary drama program. The dramatic forms of expression include dramatic movement, mime, choral speech, storytelling, dramatization, puppetry, choric drama, readers' theatre, story theatre, playmaking and group drama.

Students are expected to:

- develop flexible, free and controlled movement
- learn to express themselves physically and imaginatively through movement and gesture
- recognize and reproduce the sounds of standard speech
- learn concepts of pitch, pace, pause, rate, intensity and volume

©Alberta Learning, Alberta, Canada

- accept role playing as a positive learning experience
- apply dramatization skills to puppetry by creating a character for a puppet
- speak with energy
- speak with an appreciation of the voice as an instrument
- develop appreciation for enjoyment of literature
- develop the ability to originate a dramatic story
- cooperatively build a drama to solve problems.

Music

In the music program, students are expected to develop an enjoyment of music, an understanding of a variety of music styles and an insight into music through meaningful musical activities, such as attending a concert or playing a musical instrument, and learning musical skills or knowledge about music. The music program is developed around the concepts of rhythm, melody, harmony, form and expression. These concepts are learned through participating in six skill areas: listening, moving, singing, playing instruments, reading and writing, and creating.

By the end of Grade 5, students are expected to:

- identify musical instruments, major and minor chords, different voices, and the music of different composers
- move to various musical forms, show changes in tempo, perform simple folk dances, and plan body movements to illustrate rhythms and melodies
- sing in tune and sing folk, ethnic and seasonal songs
- sing rounds, descants and two-part songs
- play simple rhythms and accompaniments, and demonstrate skills on several instruments
- identify notes and rests
- recognize musical notation, and write rhythmic patterns
- create movements to demonstrate different forms of music, and create rhythms and melodies for poems and songs.

Language Programs and Courses Other Than English

French Immersion

In Alberta, many students have the opportunity to study in a French immersion program. This program, designed for non-French speaking students, offers students an effective way to become functionally fluent in French while achieving all of the learning outcomes of the regular program of studies. Graduates from French immersion programs achieve a level of fluency in the target language that allows them to pursue their post-secondary studies in French or to accept employment in a workplace where French is the main language of communication.

Although there are many delivery models present in Alberta schools, the most common model offered is referred to as early immersion. In this delivery model, students begin their immersion experience in Kindergarten and continue on in the program to Grade 12. There are also French immersion programs with other entry points; the most popular of these being late immersion, where the entry point is typically in Grade 7. As can be expected, the French language proficiency

©Alberta Learning, Alberta, Canada

achieved by students is in large part determined by the exposure to the target language. Regardless of the model (early or late French immersion), students in these programs generally achieve excellent results on Alberta's achievement and diploma testing programs, including English Language Arts. Learning the French language is an integral part of the immersion experience and must take place in all subject areas taught in French.

Any course, for example, mathematics, science, social studies, offered in the French language has as its basis a French version of the English program of studies. It is identical or comparable, except for Grade 1 to Grade 3 social studies, to the one used in the English program. However, a program of studies specific to French immersion students was developed for the learning/teaching of French Language Arts. Some of the main French Language Arts learning outcomes are presented below.

French Language Arts

In Division 2 of the French Language Arts program, group activities are viewed as an effective means to develop oral skills. The French Language Arts program places an emphasis on the development of skills related to the planning, monitoring and evaluation of students' communication projects.

As students progress from one grade to the next, they use their language skills learned through listening, reading, speaking, interacting with others, and writing to increase their knowledge of French as well as their language skills. Opportunities are provided for students to hone those skills in a variety of contexts, using learning materials that are increasingly challenging.

The French Language Arts program identifies a series of tasks to be performed at each grade level. From grades 4 to 6, students will be involved in activities that allow them to explore all aspects of their life and to express their creativity.

By the end of Grade 5, students are expected to select and effectively use several strategies to accomplish different tasks in each of the four communication areas: listening, reading, speaking and writing.

Listening

Students are expected to:

- listen to experiences and information shared by others
- connect information and related ideas from presentations, conversations and the media
- identify main ideas in a presentation
- respond appropriately to oral directives to accomplish a complex task
- identify setting, characters, problem, events in the storyline and ending in fictional texts
- distinguish between fictional and factual events
- express feelings and opinions.

©Alberta Learning, Alberta, Canada

To achieve these tasks, students are expected to:

- use a variety of clues to make predictions on the content, such as key words, questions related to the text, diagrams
- use knowledge of words, such as connectors to link information
- use diagrams to organize and retain information
- formulate information in their own words to confirm their understanding.

Reading

The reading material selected should be of interest to students and provide them with an opportunity to increase their reading abilities, and present a realistic challenge.

Note: Although related to students' previous experiences, by Grade 5, readings are more complex and tend to be increasingly abstract.

Students are expected to:

- identify main ideas in a presentation
- discuss how the media represent the family; parenting; children's interests and behaviour; and ethnic groups
- identify setting, characters, main problem, events in the storyline and ending in fictional texts
- make connections between fictional and factual events
- express preferences and opinions.

To achieve these tasks, students are expected to:

- use text features, such as headings, subheadings and margin organizers, to enhance understanding
- use text features, such as text format, topic, level of vocabulary to identify and choose texts as their reading level and interest
- use a variety of clues to make predictions on the content, such as key words, questions related to the text and diagrams.

Speaking

Students are expected to:

- participate in activities that allow them to express themselves spontaneously in small group discussions and problem-solving activities
- contribute to the group's knowledge on the topics under investigation
- identify and focus on information needs for research purposes
- react creatively to a given situation.

Note: Students should also be encouraged to share their experiences and express their creativity.

To achieve these tasks, students are expected to:

- select ideas and gather information relevant to the topic
- establish rules for group discussions
- respect rules approved by the group

©Alberta Learning, Alberta, Canada

- use different techniques to verify their understanding of what is being said
- ask questions or reformulate information for clarification
- recognize and correct the most common syntactic English interferences
- use appropriate words and expressions to express possession
- verify the agreement of pronoun and the word replaced (gender and number)
- verify the agreement of verb and subject
- use determiner, adjective and noun in proper order.

Writing

Students are expected to:

- present the topic in the introduction and develop various aspects of the topic
- describe the steps in accomplishing a task
- produce a narrative that includes setting, main problem, plot and ending.

To achieve these tasks, students are expected to:

- select ideas and information relevant to topics
- consult peers to clarify or validate ideas
- use adverbs and extend sentences to clarify or enrich ideas
- revise to eliminate repetitions
- use appropriate visual material to support their ideas
- recognize and correct English lexical interferences
- spell frequently used words correctly
- verify the agreement of subject and predicate at past perfect and near future tenses
- verify the agreement of plural forms of nouns and adjectives (gender and number)
- verify the agreement of synonyms and the words replaced
- use words in proper order with an adverb
- use reference materials to confirm spellings or to correct grammar
- revise their writing.

Should this program be of interest to you, contact your school jurisdiction to explore local program offerings. Information is also available from the French Language Services Branch and from Canadian Parents for French (CPF) at 403–262–5187, Calgary.

©Alberta Learning, Alberta, Canada

French as a Second Language

In Alberta, French as a Second Language (FSL) is a program in which the French language is taught as a subject, often between 20 and 40 minutes a day, to help students develop communication skills, language knowledge and cultural awareness in French.

Depending upon a school board's language policy, French as a Second Language in elementary schools may be offered as an optional program or it may be a compulsory program. School boards may begin the program at different grade levels, since the program is based on developing language proficiency over a grade or grades without being grade specific. Many schools start the elementary program in Grade 4.

The program is designed to teach students how to understand what they hear and read in French, and to communicate their ideas orally and in written form, using an approach that is based on real-life experiences and situations. Students will also acquire knowledge about local, provincial and national francophone groups to become more aware of their presence and to understand them better. Students learn French language vocabulary and grammar through thematic activities and projects that are related to real-life language experiences. At the same time, students are taught specific language learning strategies that will help them become better second language learners.

The program is organized into three language proficiency levels—Beginning, Intermediate and Advanced. Each of these proficiency levels is then further divided into three sublevels. In elementary schools, students start at the Beginning Level and progress through the Beginning 1, Beginning 2 and Beginning 3 sublevels depending on the time allocated to the program. It could take students one or more school years to reach a particular language proficiency level, depending upon when the students start the program and how much time is given to French instruction in the school.

The language content is based upon the concrete experiences of elementary students. These experiences provide a real-life context for understanding ideas in French and for communicating similar ideas. Each level has its own set of experiences that fall into the following areas:

Beginning 1

- School
- People Around Us
- Weather
- Animals
- Holidays and Celebrations

Beginning 2

- Community
- Clothing
- Exercise
- Food
- Housing

Beginning 3

- Activities
- Vacations
- Fine Arts
- Trades and Professions
- Hygiene and Safety

©Alberta Learning, Alberta, Canada

As students work through these experiences, they develop their ability to understand and communicate in French. At the end of each level, the students must demonstrate that they possess the following knowledge and language skills:

Beginning 1	Beginning 2	Beginning 3
The ability to understand simple ideas contained in listening and reading texts, such as the temperature in a weather forecast. The ability to communicate concrete ideas, using simple sentences to identify, list or describe people, places or things, and to ask simple questions orally and in writing. For example, students could name their family members, give their ages and birthdays and describe them physically.	The ability to understand simple ideas contained in listening and reading texts, such as understanding directions to the corner store or the main food items on a menu. The ability to communicate concrete ideas, using simple sentences to identify, list or describe people, places or things, and to ask simple questions orally and in writing. For example, students could provide their address, telephone number and order pizza over the telephone. They could also write a simple note to describe their house to a pen pal.	The ability to understand simple ideas contained in listening texts, such as a recorded message of flight departure times, and to understand simple reading texts, such as the safety rules on a safety week poster. The ability to communicate concrete ideas, using a number of simple sentences to identify, list or describe people, places or things, ask simple questions, give information and simple advice orally and in writing. For example, students could telephone a travel agency to ask for prices for different travel destinations. They could also write an announcement for the school's Night of Music concert to promote it in the community.

If students have attained the Beginning Level 3 language proficiency, they move into the next proficiency level, which is Intermediate Level 4.

Parent Document

The booklet *French as a Second Language (FSL) Program: A Guide for Parents* provides an overview of the Alberta FSL program. You may find this booklet particularly useful if you are considering FSL for a young child, helping an older child choose courses, or looking for ways to support your child in the FSL program. The booklet is available for purchase from the Learning Resources Centre and is also available for viewing and downloading from the Alberta Learning web site.

©Alberta Learning, Alberta, Canada

Native Languages

Blackfoot and Cree language and culture programs are designed to enable students to learn Native languages and to increase awareness of Native cultures.

Students are expected to:

- learn basic communication skills in Blackfoot or Cree
- develop cultural sensitivity and enhance personal development
- develop originality and creativity
- develop a desire to improve their competency in Blackfoot or Cree.

Ukrainian Bilingual/ Ukrainian Language Arts

The Ukrainian bilingual program is designed for native speakers of Ukrainian and for students who speak other languages and wish to learn Ukrainian. Ukrainian Language Arts is offered as part of the Ukrainian bilingual program and is designed for native speakers of Ukrainian and for students who speak other languages and wish to learn Ukrainian. The bilingual program begins in Kindergarten and goes through to Grade 12.

Students are expected to:

- obtain information from others and from simple reference materials
- present information of personal interest in the classroom
- share personal opinions, ideas and feelings
- respond personally to literature of interest to children
- use literature and other art forms to reflect creatively upon personal experience.

Students are also expected to:

- express thoughts, orally and in writing, using accurate, simple sentences
- use correct word forms and word order to formulate simple messages of personal interest
- recognize and be sensitive to characteristic cultural features
- recognize the elements of the lifestyle of Ukrainians in their immediate environment and experience
- acquire concepts and develop learning strategies in subjects taught in Ukrainian.

Other Language Programs and Courses

Locally developed language courses are available for Arabic, German, Hebrew, Italian, Mandarin and Polish. Contact your school board office for information about which language programs it offers.

©Alberta Learning, Alberta, Canada